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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,192	02/25/2004	Hong-Da Liu	TSAI 132	3368

7590 02/27/2007
RABIN & BERDO, P.C.
1101 14 Street, N.W., Suite 500
Washington, DC 20005

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/785,192	LIU, HONG-DA	
	Examiner	Art Unit	
	Kevin M. Nguyen	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f). The specification, e.g., the word "transitive" in page 1, lines 15, 30, page 2, line 3, page 3, line 8, page 4, lines 11, 15, and the rest of pages 5-7, is generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the specification and claims, to take into consideration these editorial situations and make changes as necessary.
2. Claims 10 and 20 are objected to under 37 CFR 1.75(a) because although these claims meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, the word "transitive" in claim 10, line 2, and claim 20, line 2. It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting

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of the claims, to take into consideration these editorial situations and make changes as necessary.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-6, 11-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable by Liaw et al (US 6,593,934) hereinafter Liaw.

5. As to claim 1, Liaw teaches a gray level correction device for turning a gamma curve signal of a liquid crystal display (LCD), the gray level correction device comprising:

a first sensor, which detects an external light source projecting to the LCD, including intensities of light at a plurality of angles, and converts the intensities into a first light source signal (*a sensor system 11 disposed outside the display 10 to measure an ambient light in which the outside light beams emit in various angles that direct to a surface of the display 10, col. 6, lines 3-5*); It would have been obvious to modify the various angles by having a plurality of angles, since applicant has not disclosed that having a preferred angle between the external light source and the user at this specific angle solves any stated problem or is for any particular purpose and it appears that the various angles would perform equally well with the plurality of angles.

a second sensor, which detects the light intensity of a back light source of the LCD and converts the light intensity into a second light source signal (*a sensor temperature 12 is used together with adjusting means 24 for color temperature and a backlight control unit 25, col. 6, lines 13-37*);

a database, which receives the first and second light source signals, is built with the gamma curves of the external light source and the back light source, and outputs a correction signal according to the first and second light source signals (*memory 21 stores the Gamma reference voltage that evaluated by the CPU as well as the corresponding gray scale-to-luminance destination curve outputting the adjusting signal (as corresponding to a correction signal) in accordance with the signals of the sensors 11 and 12, col. 6, lines 13-27*);

a gamma-curve correction device, which receives the correction signal and outputs a gamma-curve signal according to the correction signal; and a liquid crystal display (LCD) panel, which receives the gamma-curve signal and displays an image accordingly (*optimizing with circuits for display to evaluate the Gamma reference voltages and the corresponding gray scale curve. And then delivering signals which present the Gamma into the programmable Gamma means 30 and delivering the corresponding gray scale values to the switch control unit 40, col. 6, lines 38-56*).

6. As to claims 3-6, Liaw teaches the device of claim 1, wherein the first sensor is installed on the shell of the LCD panel, wherein the first sensor includes a plurality of optical sensors, wherein the second sensor further detects a front light source, wherein the second sensor includes a plurality of optical sensors (*a sensor system 11 disposed*

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outside the display 10 to measure an ambient light in which the outside light beams have the angles that direct to the display 10, col. 6, lines 3-5);

7. As to claims 11 and 12, as noting in figure 13, col. 8, lines 5-28, Liaw further discloses the claimed features of these claims.

8. Claim 13 shares the same limitation without "a LCD panel, which receives the gamma curve signal and display an image accordingly" as those of claim 1 and therefore the rationale for rejection will be the same.

9. Claim 15 and 16 share the same limitations as those of claims 3-6 and therefore the rationale for rejection will be the same.

10. Claims 2, 7, 10, 14, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liaw in view of Baek (US 7,176,862).

11. As to claim 2, Liaw teaches all of the claimed limitation of claim 1, except wherein the LCD is a transfective LCD. However, Baek conventionally discloses the transmissive mode and reflective mode LCD in figure 3, col. 2, lines 7-25.

12. As to claim 7, Baek conventionally discloses the device of claim 1, wherein the gamma curve of the external light source includes an R-V curve (*a first driving mode including the reflective mode using a peripheral light source in which the gamma reference voltage is determined by generating a gray voltage in accordance with the maximum luminance value Ymax (reflective rate versus voltage) on external condition, figure 3, col. 2, lines 14-67*).

13. As to claim 10, Baek conventionally discloses the device of claim 1, wherein the gamma curve of the back light source includes a T-V curve (*a second driving mode*

including the transmissive mode using a back light source in which transmissive rate versus voltage curve in figure 3, col. 2, lines 14-67).

14. Claim 14 shares the same limitation as those of claim 2 and therefore the rationale for rejection will be the same.

15. Claims 17 and 20 share the same limitations as those of claims 7 and 10 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Liaw to become reflective and transmissive rate versus voltage curve in figure 3 as conventionally disclosed by Baek because this would improve the quality picture being displayed on the liquid crystal display screen (col. 3, lines 23-27 of Baek).

16. Claims 8, 9, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liaw in view of Holub et al (US 6,459,425) hereinafter Holub.

17. As to claims 8 and 9, Liaw teaches all of the claimed limitation of claims 1 and 13, except wherein a preferred angle between the external light source and the user is between 5 degree and 65 degree, and 15 degree and 40 degree. However, Holub teaches color measuring instrument including a sensor spaced from the screen at different types of angles in radian see table 1 at col. 38, col. 52 and 53.

18. Claims 18 and 19 share the same limitations as those of claims 8 and 9 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Liaw to have 5 degree and 65 degree and 15 degree and

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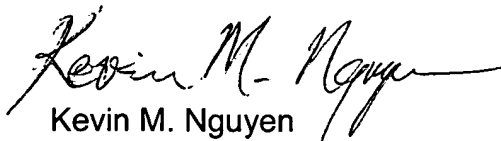
40 degree as taught by Holub because this would improve the color imaging system in which color measurements are accurately provided by rendering devices using a calibration system (col. 9, lines 20-24 of Holub).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kevin M. Nguyen
Patent Examiner
Art Unit 2629

KMN
February 21, 2007